

V. planets -
paper

Department of Planetary Sciences
Lunar and Planetary Laboratory

THE UNIVERSITY OF
ARIZONA
TUCSON ARIZONA

Tucson, Arizona 85721
Tel: (602) 621-6963
Fax: (602) 621-4933
Telex: 187167 AZUTUC UT

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Dr. Carl Sagan
Center for Radiophysics and Space Research
Space Sciences Building
Cornell University
Ithaca, NY 14853-6801

Ms. Candice Hansen
Mail Stop 168-222
Jet Propulsion Laboratory
Pasadena, CA 91109

Dear Carl and Candy,

I have been thinking about where to go with the Portrait of the Solar System paper, and here are my thoughts.

It isn't clear to me what the purpose of the paper is. As it stands, it has two emphases. One is on the evolution of the idea of taking such a series of images, and the other is on the planning and execution of the experiment. If we decide to go with Science, then I presume we would submit it as a Report which has a 3-page limit. ('A Message from Earth' by Sagan, Sagan and Drake was published in Science as a Report.) Is the 'Evolution of a Concept' section of the Portrait paper really appropriate for a Report to Science? I don't think so. Arguing by analogy to the Message paper, it would appear that emphasis on the implementation of the experiment and explanation of the final images would be more appropriate for such a Report.

Having said this, I will admit that to me, and maybe to most people, one of the most interesting aspects of the Portrait project is the resistance that was exhibited by some Voyager Project personnel when it came to giving approval for the idea. I remember when I informally proposed in 1984 that one of the Voyagers take a picture of all the planets in the inner solar system, I was told (by people like Ed Stone, no less), 'If there is no science in it, then it can't be done.' And so I went away and came up with the asteroid dust band experiment instead. I remember after the Neptune encounter when the Portrait idea came up again, certain Project personnel kept repeating the if-there's-no-science-we-won't-do-it chant. I think that if any part of the Evolution section remains in the final paper, the inclusion of a sub-plot describing the struggle between the 'imaginative and the intransigent, the romantics and the technocrats' would be a vital addition to this section.

This brings me to the issue of historical accuracy. I know that as written, the Evolution section describes my role in the whole thing somewhat erroneously. Completely unaware that anyone else had previously proposed a Portrait mosaic, I began to ask around the Voyager project in 1984 if such a thing could be done. This is not mentioned in the paper. Now I've never even

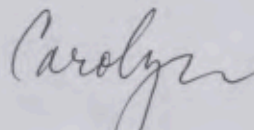
met William Kosmann, the author of the Evolution section, so it's perfectly understandable that he wasn't aware of my actions until they surfaced as the dust band proposal. But it makes me think: how many other people came up with this idea about whose actions we have no awareness? Maybe, to avoid overlooking anyone, we shouldn't describe that Person A did this, and Person B did that, but simply that this idea was brought to the attention of the Voyager project many times during Voyager's 12 year journey by a number of individuals and, after somewhat of a struggle, didn't finally receive approval until the early part of 1990.

So what do we do? I think we need first to decide what the emphasis will be (i.e., concept evolution or implementation or both), before we decide in what journal to publish. Restating what I said above, if we either completely cut or substantially reduce the Evolution section, then I think a Report to Science would work. On the other hand, if we are enthralled with the concept evolution aspect of the Portrait experiment, then perhaps submission to a magazine like Astronomy, which would be more accepting of historical description, or maybe even to Science as a General Article, would be more appropriate. I would vote for the Science Report route, with a reduced Evolution section.

As the paper stands, it needs a substantial amount of rewriting. Since Carl volunteered to prepare a first draft, I'm presuming that he will do the lion's share of this. I could add some description about how I evaluated the exposure times. For the Earth, this is in fact an interesting bit of scientific trivia, since we know less about the phase function of the Earth (seen from space) than most other planets. And, should we decide to leave the Evolution section intact, ascribing specific actions to specific individuals, I can certainly write a more accurate description of my role.

That's all for now. I look forward to hearing from the both of you.

Regards



Carolyn Porco